

Amendments to the Claims:

1. (Canceled)

2. (Currently amended) The MRI apparatus as set forth in ~~claim 1~~
claim 8, further including:

a first gradient coil system disposed between the first RF screen and
the first pole piece.

3. (Currently amended) The MRI apparatus as set forth in ~~claim 1~~
claim 8, further including:

a second, planar resonator disposed between the remaining one of the
pole pieces and the examination zone, arranged substantially in a second common
plane;

a second RF screen disposed between the second pole piece and the
second resonator; and

a second gradient coil system disposed between the second RF screen
and the remaining pole piece.

4. (Currently amended) The MRI apparatus as set forth in claim 2,
wherein the first conductor of the first, planar resonator includes~~[[;]]~~ a first circular
plate~~[[;]]~~ and the first conducting ring includes a first circular conducting ring
surrounding the first circular plate;~~and~~

~~a first plurality of capacitors arranged radially around the first circular
plate, connecting the first circular plate to the first circular ring.~~

5. (Currently amended) The MRI apparatus as set forth in claim 4,
further comprising:

a-wherein the second, planar resonator includes: disposed between the
remaining one of the pole pieces and the examination zone, arranged substantially in a
second common plane, the second, planar resonator including a second circular
plate~~[[;]]~~ in the second common plane, a second circular conducting ring in the second

common plane surrounding the second circular plate[:;], and a second plurality of capacitors arranged radially around the second circular plate, connecting the second circular plate to the second circular conducting ring;

a second RF screen disposed between the second pole piece and the second, planar resonator; and

a second gradient coil system disposed between the second RF screen and the remaining pole piece.

6. (Previously presented) The MRI apparatus as set forth in claim 5, wherein each of the first and second RF screens is larger in diameter than the respective resonator.

7. (Previously presented) The MRI apparatus as set forth in claim 5, wherein said first and second plurality of capacitors are PCB capacitors.

8. (Currently amended) ~~The An~~ MRI apparatus ~~as set forth in claim 2, wherein that includes a magnet system for generating a B₀ magnetic field in an examination zone between poles, the apparatus comprising:~~

a first, planar resonator disposed between one of the pole pieces and the examination zone, arranged substantially in a first common plane, the first resonator ~~includes:~~ including a first conductor[:;] in the first common plane, a first conducting ring in the first common plane surrounding the first conductor[:;], and a first plurality of capacitors arranged radially around the first conductor[:;] and connecting the first conductor to the first conducting ring; and

a first RF screen disposed between the first pole piece and the first resonator.

9. (Currently amended) The MRI apparatus as set forth in ~~claim 2~~ claim 8, wherein the first conductor of the first, planar resonator includes[:;] a first ring or plate[:;] in the first common plane and the first conducting ring includes a first conducting ring in the first common plane and surrounding the first ring or plate; and

~~a first plurality of capacitors arranged radially around the first ring or plate, connecting the first ring or plate to the first conducting ring.~~

10. (Original) The MRI apparatus as set forth in claim 2, wherein the B_0 magnetic field is a vertical field.

11. (Previously presented) The MRI system as set forth in claim 4, further including:

sequence control means for controlling a gradient control and RF transmitter to induce spatially encoded magnetic resonance signals in the examination zone;

receiving means for receiving and demodulating magnetic resonance signals received from the first planar resonator;

reconstruction means for reconstructing the demodulated magnetic resonance signals into at least one image representation;

memory means for storing image data of the at least one image representation;

image processing means for performing image and volumetric analysis of the image data, and creating analysis data;

video processing means for converting the image data and analysis data into an appropriate format for display; and

display means for displaying the converted image data and the converted analysis data.

12. (Currently amended) A planar resonator for use in the MRI apparatus of ~~claim 1~~ claim 8.

13. (Previously presented) A resonator for an open MRI system, the resonator comprising:

a round, central conductor;

an annular ring surrounding and in the same plane as the central conductor;

a plurality of rungs arranged radially between the central conductor and the annular ring and in the same plane as the central conductor and the annular ring; and

a plurality of capacitors disposed in the rungs.

14. (Previously presented) The resonator as set forth in claim 13, wherein the central conductor is a plate.

15. (Previously presented) The resonator as set forth in claim 13, wherein the central conductor is circular.

16. (Previously presented) The resonator as set forth in claim 13, wherein the plurality of capacitors includes at least 1000 capacitors.

17. (Currently amended) A method of reducing a stray field in an open MRI apparatus with a resonator adjacent a pole and an RF screen between the resonator and the pole, the method comprising:

mounting a planar central conductor of the resonator adjacent and displaced from the RF screen;

mounting an annular ring coplanar with the planar central conductor and surrounding the central conductor;

connecting the central conductor to the annular ring with a plurality of capacitors arranged radially.

18. (Original) The method as set forth in claim 17, wherein the planar central conductor is a plate.

19. (Original) The method as set forth in claim 17, wherein the plurality of capacitors is a maximal number of capacitors.

20. (Original) The method as set forth in claim 17, wherein the distance between the RF screen and the resonator is maximized.